



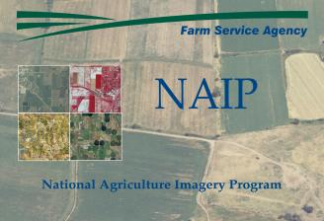
Homeland Infrastructure Foundation – Level Data (HIFLD)

**Working Group Meeting
September 13-14, 2011**

NATIONAL AGRICULTURE IMAGERY PROGRAM

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Farm Service Agency
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HIFLD Take -Aways

- **FSA's current 2012 plans are to collect NAIP in 13 States – *this is Agency and partner funding contingent.***
- **FSA and Federal partners will acquire a *base* 4-band imagery product for priority states.**
- **Additional States are prioritized for acquisition contingent on receipt of additional funding.**
- **Additional Partnership and Buy-up opportunities exist.**
- **Formal written partnership agreement are needed by Jan. 31, 2012**
- **Deliverables are provided to partners roughly 30* days after the end of the flying season.**
- **Putting it in Perspective: Low cost, high quality product**

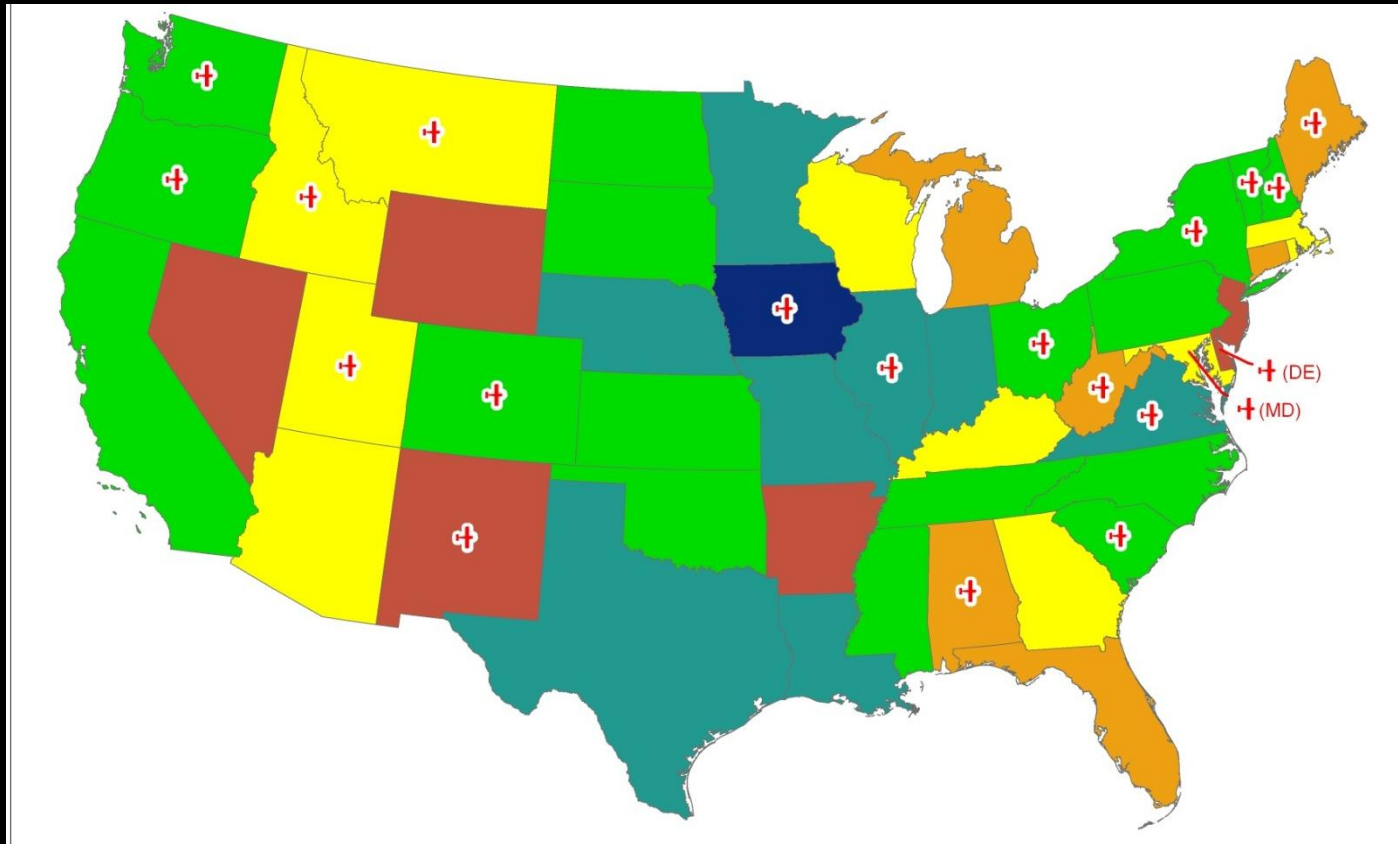
What Is NAIP?

- **Annual 1 Meter Resolution Imagery Program**
- **CONUS - Statewide acquisition**
- **“Leaf-On” acquisition**
- **Primarily aerial collection, but satellite imagery is accepted**
- **Public Domain**
- **3 year or less cycle**
- **Next 3 year cycle begins in 2012**

NAIP History

- **Main program started in 2003**
- **Two complete cycles of 1-meter imagery over CONUS, third underway**
- **At the end of 2010, all CONUS states had imagery 2 years old or newer**
- **\$182 Million invested**
 - \$134 M FSA (74%)**
 - \$48 M Partners (26%)**
- **Successful Program Management**
- **Successful cost-share partnership**
- **Successful Federal/Vendor partnership**

NAIP – Largest Single Civilian Mapping Program in US History



Total Years of NAIP Imagery, 2003 - 2011 (1 or 2 meter)

EXPLANATION:

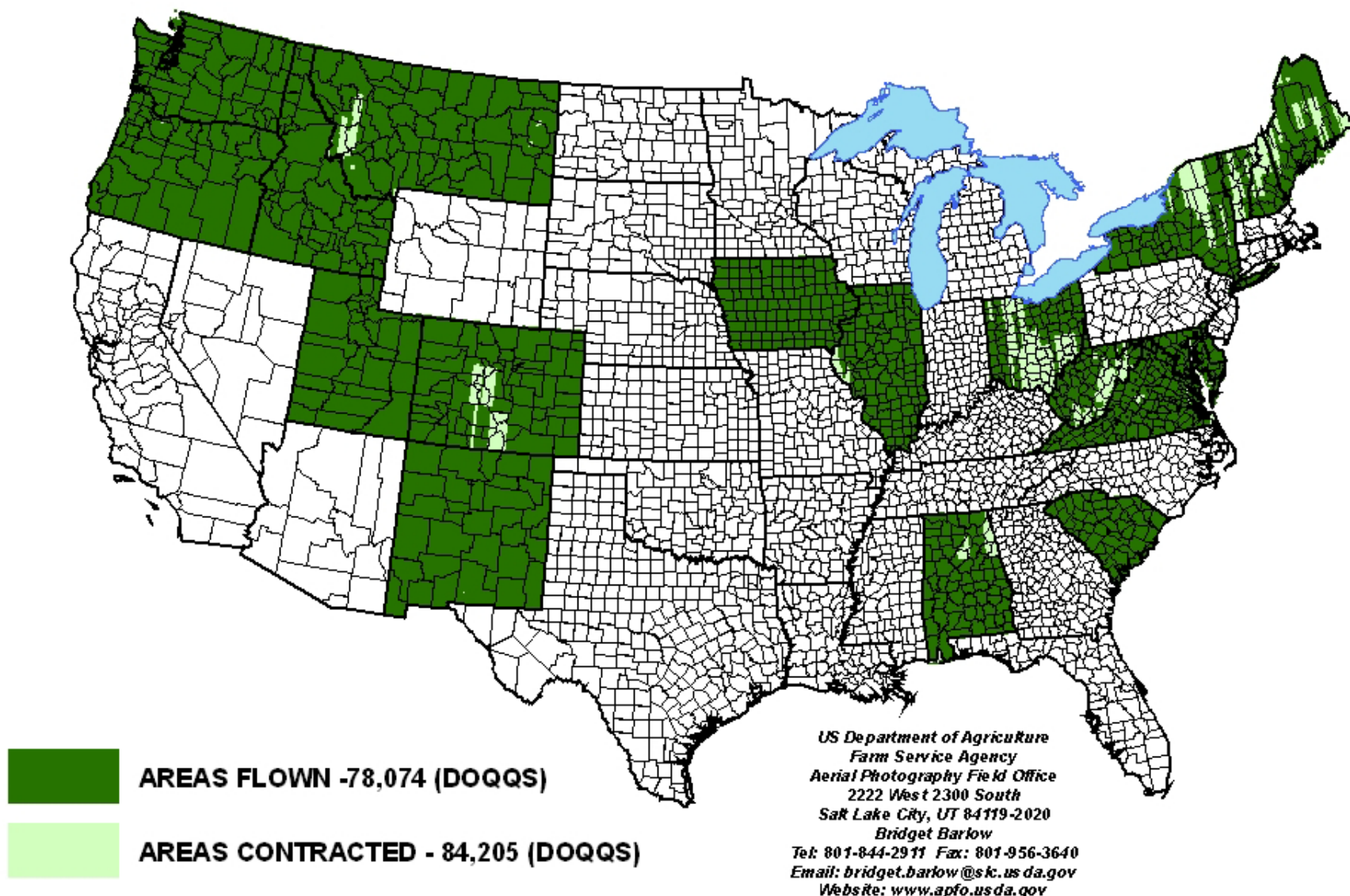
Status as of August 2011

Some 2 meter projects were partial coverage



✚ 2011 NAIP Acquisitions

2011 NAIP IMAGERY STATUS



NAIP is Key to Farm Service Agency and USDA's Mission

- **FSA is a land/place based Agency**
- **NAIP is the Base Layer for FSA and other USDA Agencies**
- **NAIP supports day-to-day program administration**
 - **farm record maintenance**
 - **crop reporting**
 - **compliance and monitoring activities**
 - **change detection**
 - **disaster event preparation, response and reporting**
 - **program analysis tool**

Who Else Uses NAIP?

- **Our Funding Partners: USDA Natural Resource Conservation Service and US Forest Service and Department of Interior**
- **Buy-up Partners: State/Fed Government Consortiums**
- **Non-Partnering Federal Users (via Download, Web Service, Media) DOJ, DOD, EPA, and others**
- **Non-Partnering Public Entities**
 - **State and Local Governments**
 - **Academia**
- **Private industry mapping ventures: ESRI, Google, and others.**

NAIP Program Management

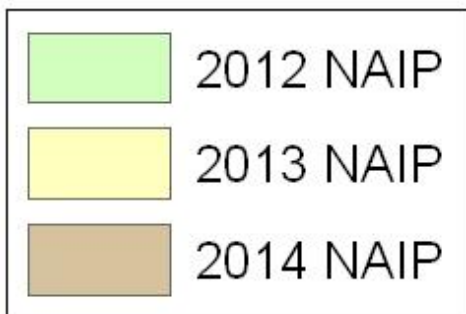
- **Effective central acquisition, management and distribution**
- **Second 3-Year Partnership Underway: 2012-2014**
- ***Projected* annual FSA funding at \$10.1M**
- **Federal Cost Share Target at \$5.6M (\$1.87M/3 way)**
- **Annual Schedule is based on**
 - **Available Funding**
 - **Date of Existing Imagery in Target States**
 - **FSA Program Priority**

NAIP Program Management

- **FSA will issue a new Best Value, multi-year contract in 2012**
 - **All requirements in place January 2012**
 - **RFP issued in February**
 - **Proposals due mid-March**
 - **Source Selection late March**

2012 - 2014 NAIP ACQUISITION

3 - YEAR CYCLE



NAIP 2012

Base Level Program Requirements

- **1 meter resolution**
- **4-Band is now the base product**
- **Absolute Horizontal Accuracy Specification**
 - **6 meters from “true ground” position**
- **Flying Season**
 - **Crop growing season - determined by FSA**
- **<10% cloud cover**

NAIP 2012

- **Deliverables : Some Changes**
 - **4-band imagery will be the base product**
 - **4-Band Quarter-Quads will be the primary deliverable – 30 days after acquisition/end of flying season**
 - **Compressed County Mosaic - secondary deliverable, possibly 45 days after acquisition (as yet TBD)**
 - **Compression is now 1:15 – may change, particularly for larger counties**
 - **Under discussion – state seam line shapefile**

Planned 2012 NAIP

Oregon

California

Wyoming

Nebraska

Texas

Missouri

Illinois

Michigan

Mississippi

Alabama

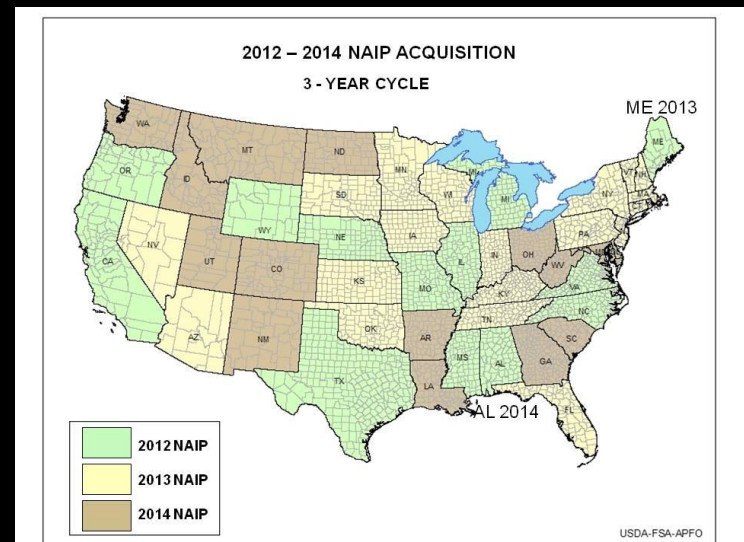
North Carolina

Virginia

Maine

**Priority Selection
Based On:**

**Final Funding
Age of Imagery
FSA Mission Req.**



Buy-up Options – Procedures

- Buy-up Options:
 - Half Meter Resolution Imagery
- Firm, set price determined for each state in 2012 schedule
 - Based on estimated 2012 base price
- Formal Agreement or written commitment needed by **January 31, 2012.**

Half Meter Project Requirements

- Absolute Horizontal Accuracy
 - 6 meters from “true ground” position
- Flying Seasons
 - Crop growing season - determined by FSA
- <10% cloud cover
- Deliverables
 - Quarter Quads in GeoTIFF
 - Compressed County Mosaics (CCMs)
 - Currently researching highly compressed ½m mosaics (MG3) or providing standard 1m CCM

NAIP Half-Meter Estimated Cost

- Price Estimated at additional 50% of base costs
 - 1 meter 4-band estimated at \$230/quarter quad
 - Half meter buy-up cost at \$115/QQ (50% of base cost)
 - Total entire half meter project cost at \$345/QQ
 - FSA and federal partners pay base price of \$230
 - State/Federal partners pays buy-up price of \$115
- *Estimated prices are based on averaged costs for average difficulty states and are provided for planning purposes only.*
- State partner agreements will be based on state specific estimates and will be adjusted according to location, terrain and local weather patterns.

Half Meter Buy-up

- 2011 Contractor Survey Summary
 - Interest
 - All six prime contractors are interested and capable
 - Acquisition
 - Risks include additional flight lines at lower altitudes (more flying = higher costs)
 - Advantages include less airspace restrictions, more aircraft available, more SB subcontract opportunities
 - Production
 - Current contractor infrastructure is capable of handling increased workloads associated with ½ meter product
 - Price
 - Contractor cost estimates provided an average 50% increase in price for ½ meter product. Variables such as location, terrain, and local weather could impact costs and prices.

Where to Find NAIP

- **Interactive viewer for all NAIP Imagery:**
 - <http://gis.apfo.usda.gov/gisviewer>
- **On Line Ordering System:**
<https://coes.apfo.usda.gov/index.html>
- **Compressed County Mosaics (CCMs) are available through the USDA Geospatial Data Gateway:** <http://datagateway.nrcs.usda.gov>
- **The most recent year of NAIP Imagery DOQQs is available on an ArcGIS server**
<http://gis.apfo.usda.gov/arcgis/services>

NAIP 2012 Contacts

- ▣ Partnership Information/ Agreements
 - NAIP Partnership Coordinator
 - ▣ Bridget Barlow 801-844-2911
 - ▣ Bridget.barlow@slc.usda.gov

- ▣ Contract Technical Information
 - NAIP Contract Administrator
 - ▣ John Mootz 801-844-2916
 - ▣ john.mootz@slc.usda.gov



Thank You!

